

Attorney Docket No.: 01CON202P

REMARKS

By the present amendment and response, claims 1, 3-4, 11-13, 20, 22, 23, 30, 32, and 33 have been amended to overcome the Examiner's objections and claims 2, 21, and 31 have been canceled. Thus, claims 1, 3-20, 22-30, and 32-39 are pending in the present application. Reconsideration and allowance of pending claims 1, 3-20, 22-30, and 32-39 in view of the following remarks are requested.

The Examiner has rejected claims 1-39 under 35 USC §103(a) as being unpatentable over U.S. patent number 6,281,873 B1 to David Oakley ("Oakley"). For the reasons discussed below, Applicant respectfully submits that the present invention, as defined by amended independent claims 1, 11, 20, and 30, is patentably distinguishable over Oakley.

The present invention, as defined by amended independent claim 1, recites, among other things, a FIFO that receives a second plurality of video lines at a first frequency from a vertical scaler and outputs the second plurality of video lines at a second frequency, "wherein said second plurality of video lines are in a first video format, wherein said first video format has a video format resolution higher than VGA." As disclosed in the present application, a vertical scaler receives a number of video lines at a first frequency and outputs an appropriately reduced number of video lines at the first frequency. Thus, in the present invention, the vertical scaler performs "vertical scaling" to reduce the number of video lines in a high resolution video format, such as SVGA, to a

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number of video lines required by a low resolution video format, such as an NTSC video format.

As disclosed in the present application, the reduced number of video lines are inputted in a FIFO at the first frequency and outputted by the FIFO at a second frequency. For example, the first frequency can be 75 MHz and the second frequency can be 50 MHz. In the present invention, the FIFO, which is driven by appropriate input and output clocks provided by a multi-frequency clock generator, "horizontally scales" each of the reduced number of video lines, which can have a video format resolution higher than VGA, such that each of the reduced number of video lines will fit in the active region of a monitor displaying a low resolution video format, such as the NTSC video format. Thus, the present invention utilizes a FIFO in a video encoder to advantageously convert VGA, SVGA, and higher video format resolutions into a low resolution video format, such as the NTSC video format.

In contrast, Oakley does not teach, disclose, or suggest a FIFO that receives a second plurality of video lines at a first frequency from a vertical scaler and outputs the second plurality of video lines at a second frequency, "wherein said second plurality of video lines are in a first video format, wherein said first video format has a video format resolution higher than VGA." Oakley specifically discloses an exemplary circuit that utilizes field buffer memory 44, which is a frame buffer, for vertically scaling a VGA video format to a television video format. See, for example, column 5, lines 17-20, column 6, lines 7-18, and Figure 3 of Oakley. Oakley further discloses that field buffer

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memory 44 can be replaced by a FIFO memory, i.e. FIFO memory 50, if three conditions are satisfied: (1) VGA frame rate equals TV field rate; (2) 480 active lines; and (3) the VGA active video period equals the television active video period. See, for example, column 6, lines 66-67, column 7, lines 1-15, and Figure 5 of Oakley.

Thus, Oakley discloses a vertical scaler that can utilize a FIFO memory, i.e. FIFO memory 50, in place of a frame buffer only for VGA. However, Oakley fails to teach, disclose, or remotely suggest a FIFO that receives a second plurality of video lines at a first frequency from a vertical scaler and outputs the second plurality of video lines at a second frequency, "wherein said second plurality of video lines are in a first video format, wherein said first video format has a video format resolution higher than VGA." In fact, by requiring VGA specifications to be met in order to replace a frame buffer with a FIFO memory, Oakley teaches away from utilizing a FIFO memory for video format resolutions higher than VGA.

For the foregoing reasons, Applicant respectfully submits that the present invention, as defined by amended independent claim 1, is not suggested, disclosed, or taught by Oakley. As such, the present invention, as defined by amended independent claim 1, is patentably distinguishable over Oakley. Thus claims 3-10 depending from amended independent claim 1 are, *a fortiori*, also patentably distinguishable over Oakley for at least the reasons presented above and also for additional limitations contained in each dependent claim.

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The present invention, as defined by amended independent claim 11, specifies, among other things, receiving by a FIFO a second plurality of video lines at a first frequency and outputting by the FIFO the second plurality of video lines at a second frequency, "wherein said second plurality of video lines are in a first video format, wherein said first video format has a video format resolution higher than VGA. Additionally, amended independent claims 20 and 30 specify similar limitations as amended independent claim 1 discussed above. Thus, for the same reasons as discussed above, the present invention, as defined by amended independent claims 11, 20, and 30, is not suggested, disclosed, or taught by Oakley. Thus, the present invention, as defined by amended independent claims 11, 20, and 30, is also patentably distinguishable over Oakley and, as such, claims 12-19 depending from amended independent claim 11, claims 22-29 depending from amended independent claim 20, and claims 32-39 depending from amended independent claim 30 are, *a fortiori*, also patentably distinguishable over Oakley for at least the reasons presented above and also for additional limitations contained in each dependent claim.

Based on the foregoing reasons, the present invention, as defined by amended independent claims 1, 11, 20, and 30 and claims depending therefrom, is patentably distinguishable over the art cited by the Examiner. Thus, claims 1, 3-20, 22-30, and 32-39 pending in the present application are patentably distinguishable over the art cited by the Examiner. As such, and for all the foregoing reasons, an early Notice of Allowance

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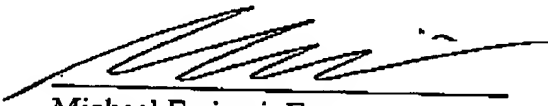
for all claims 1, 3-20, 22-30, and 32-39 pending in the present application is respectfully requested.

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Respectfully Submitted,
FARJAMI & FARJAMI LLP

Date: 5/26/04

FARJAMI & FARJAMI LLP
26522 La Alameda Ave., Suite 360
Mission Viejo, California 92691
Telephone: (949) 282-1000
Facsimile: (949) 282-1002


Michael Farjami, Esq.
Reg. No. 38,135

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